

CLAIMS LISTING

1. (currently amended) A method for the detection of small quantities of particles by the detection of antigen-antibody precipitates concentration which comprises:

providing a sample fluid that essentially contains particles antigens with a given maximum particle size, the particles antigens having at least two antibody binding sites;

providing a fluid containing antibodies that essentially ~~contains~~ particles having have a given maximum particle size;

contacting the sample fluid with the fluid containing the antibodies, which yields a reaction fluid mixture where in the presence of particles antigens having at least two antibody binding sites the antibodies can form an antigen-antibody precipitate;

directing a light beam through the reaction fluid mixture;

detecting a signal by measuring with a photodetector the extinction at the light-dark boundary of the cone of light that is produced when the light generated by the laser is passing through the a measuring cell

containing the reaction fluid mixture, the signal strength depending on the size and number of antigen-antibody precipitates formed.

2. (currently amended) The A method according to claim 1,
wherein the sample fluid contains particles antigens with a
concentration in the order of magnitude of femtograms or
attograms per liter.

3. (currently amended-withdrawn) The A method of claim 1 or 2
~~according to any of the preceding claims~~, wherein the step of providing a sample fluid that essentially contains particles antigens having a given maximum particle size comprises:

a) providing a fluid liquid,
introducing a sample component into the fluid liquid, and separating particles antigens that exceed a given particle size, in order to obtain a sample fluid that essentially contains only particles antigens having a given maximum particle size, or

b) providing a second fluid that essentially contains particles antigens having a given maximum particle size and

introducing a second sample component into the fluid
liquid that essentially contains particles antigens
having a given maximum particle size, in order to
obtain a sample fluid that essentially contains
particles antigens having a given maximum particle
size.

4. (currently amended-withdrawn) The A method of claim 1 or 2
~~according to any of the preceding claims, wherein the~~
separation of the particles antigens having a size
exceeding the given maximum particle size is effected by
filtration, the filter having a pore size of preferably 20
- 450 nm, more preferably of 100 - 300 nm, and particularly
of 200 nm.

5. (currently amended) The A method of claim 1 or 2 according
~~to any of the preceding claims, wherein antibodies comprise~~
at least one antibody selected from a two monoclonal
antibodies antibody and a ~~or one~~ polyclonal antibody ~~are~~
~~employed as antibodies.~~

6. (currently amended) The A method of claim 1 or 2 according
~~to any of the preceding claims, wherein the antibody is~~

selected from the group consisting of immunoglobulin G or
and immunoglobulin M.

7. (currently amended) The A method of claim 1 or 2 according to any of the preceding claims, wherein the method allows the quantity of particles antigens to be detected quantitatively or semiquantitatively.
8. (currently amended) The A method of claim 1 or 2 according to any of the preceding claims, wherein, at a constant concentration of antibodies, the decrease of the measured signal is directly related to the concentration of antigens.
9. (currently amended-withdrawn) A computer program product comprising program code means stored in a computer readable medium, for carrying out the method according to any of the claim 1 or 2 to 8 when the computer program product is executed on a computer, a network device or a device, particularly an analytical detection device.
10. (currently amended-withdrawn) A computer program product comprising a program code downloadable from a server, for carrying out the method according to any of the claim 1 or 2 to 8 when the computer program product is executed on a

computer, a network device or a device, particularly an analytical detection device.

11. (cancelled)

12. (cancelled)